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News Release

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£1.5m trial to prevent fractures in people with brittle bone disease

People with a rare bone condition that can cause them to have hundreds of fractures during a lifetime are being invited to trial a potential treatment.

Researchers have received £1.5 million to conduct the study, which will involve 390 people with a condition called Osteogenesis Imperfecta (OI).

The six-year trial will test whether the combination of two therapies that are already used to treat a different bone condition can also help to reduce the risk of fractures in people with OI.

Around half of the study's participants will be treated with a drug called teriparatide followed by treatment with another drug called zoledronic acid. The other half will receive standard care.

Researchers will track the participants for up to five years to see whether the combination of therapies offers any benefit.

Osteogenesis Imperfecta is caused by genetic mutations that lead to abnormalities in an important component of bone called collagen. People with the disease have extremely fragile bones that break easily, often from mild trauma or for no apparent cause.

Both teriparatide and zoledronic acid are established treatments for the bone-thinning disease osteoporosis but this is the first time they have been tested in combination as therapies for OI.

The study, led by the University of Edinburgh, will involve 25 hospitals in the UK and one in the Republic of Ireland. It is being funded by The National Institute for Health Research Efficacy and Mechanism Evaluation (EME) Programme.

Professor Stuart Ralston, of the University of Edinburgh's Centre for Genomic and Experimental Medicine, said: "This is potentially a game-changing trial since it is the first study that had been specifically designed to investigate whether any treatment can prevent fractures in osteogenesis imperfecta. If the results are positive, it could herald a new dawn in the treatment of this rare but devastating condition."

Chief Executive of the UK Charity Brittle Bone Society, Patricia Osborne, said "We have been supporting people with OI for 50 years and are pleased to see a potential new therapy being trialled that may improve the quality of peoples' lives".

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